Because of distortion in finishing, many knit garments are unsatisfactory in size and in appearance after laundering.

For example, the plain knit cotton T-shirt in one of the drawings made of the fabric with elongated loops shrank in length and stretched in width and has ruffled sleeve seams and a stretched neckband. The T-shirt made of the fabric with round loops held its shape in laundering and maintained its attractive appearance.

**How can one select knit garments that will not shrink or stretch?**

Choose those with the round loops. This is not always easy, especially in a finely knit fabric. A sure way is to count the number of loops in a 1-inch distance both lengthwise and widthwise of the fabric. In case of a plain knit, the number of loops lengthwise should be approximately 1.1 times the number widthwise. For example, plain knit that has 30 wales per inch should have about 33 courses per inch.

Much of the knit piece goods in retail stores is not properly finished and hence will shrink and stretch in laundering. These materials may be relaxed in the home before they are made into garments.

Knit fabrics of wool may be lightly steamed, pressed, and allowed to lie flat before cutting.

Piece goods knit of cotton as well as other fibers may be relaxed by wetting out thoroughly, extracting or drying in a towel, and tumbler dried. If you do not tumble dry it, lay the fabric flat without distorting it for drying. (HAZEL M. FLETCHER)

**Stretch Fabrics**

Stretch fabrics are the sort of thing that leads one to ask, “Why didn’t somebody think of it before?” They provide better fit for many items, from baby clothes to upholstery. They come in many weights, fibers, colors, and finishes. Some have little stretch; others, much. Some give ease of movement or a smooth fit; others, forceful control.

We can classify their stretch in two ways.

One is the power stretch, of the kind built into foundation garments, swimsuits, men’s tummy-restraining shorts and briefs, and so on.

The other is comfort, or action, stretch. It is used in children’s garments, sport and casual clothes, men’s
shirts, and other items in which movement is involved and a smooth fit is desired.

Many people know about power stretch. Comfort stretch is a newer idea, and it is the one I discuss here.

You cannot tell by looking at cloth whether or not it is a stretch fabric. It probably looks just like a similar fabric—gabardine, batiste, taffeta, or print cloth—which has only a normal stretch.

The amount of stretch in the finished fabric depends somewhat on the fiber and the method of producing the stretch.

**Three basic methods** are used in making stretch materials.

Spandex—a fiber with rubberlike elasticity—is made from polyurethane. Spandex lasts longer than rubber and requires no special care.

Spandex is seldom used alone, but forms the core around which other fibers are spun. The amount of stretch is determined by the amount of elongation used during the spinning process. The treatment of the fabric is determined by the other fibers used.

Many of the power stretch fabrics are made from spandex. It also is used for comfort stretch, sometimes alone and sometimes as the core for spun yarn.

The second method is thermoplastic, or the heat setting of yarns. Any method for producing texturized or crimped yarns may be used. A common procedure for manmade fibers is to twist the yarn to the desired amount; heat-set it; then twist it in the opposite direction.

This process gives a tight curl that uncurls and returns to a less tense position when forces are removed.

Cotton may be processed by this method, if resin is applied before the heat treatment. Again, the amount of stretch is predetermined by the manufacturer.

When stretch yarns are woven or knitted into fabrics, some of the stretch may be lost in the manufacturing.

The type of fibers, the original amount of stretch in the yarn, the tensions of the yarn during fabric construction, the temperatures and chemicals used in making, dyeing, and finishing, all affect the amount of stretch in the finished fabric, the amount of shrinkage to be expected, and the care required.

**Slack mercerization,** the third method, is a treatment applied to fabric. Cotton fabric is treated with sodium hydroxide while there is no tension in the direction that is to stretch. The fabric is then washed and finished to the chosen stretch, which may be 20 percent or less. Stretch may be lengthwise, widthwise, or both.

No industry standards for comfort stretch had been set in early 1965. In fact, according to one manufacturer, there were as many definitions for stretch as persons defining it.

As a result, some fabrics labeled "stretch" have little more stretch than a good-quality fabric of the same type that is not labeled "stretch."

In general, however, the trade has agreed that stretch in the widthwise direction (also called east-west, horizontal, or filling stretch) should be about 20 percent; in the lengthwise direction (called north-south, vertical, or warp stretch), 50 percent or more.

Sometimes a fabric stretches in both directions (but usually only in one), and garments are cut lengthwise or crosswise, depending on the type of garment.

Pants and slacks usually are cut with the stretch lengthwise; other garments, with the stretch widthwise.

Although I have discussed stretch only, fully as important to you is whether or not the material returns to its original size and shape after the forces are removed. If not, the material is said to "grow."

Growth is the percentage of increase in length after the fabric has been stretched and released. If the fabric grows, a garment made of it may become wrinkled and baggy.
The ideal fabric would have zero-percent growth. Some fabrics have a large amount of growth—20 percent or more. But the aim of reliable manufacturers is 2 inches per yard (about 5 percent) or less for children's and sports wear and less than 1 inch per yard (2 percent) for dressier wear.

Of course, the farther you stretch the fabric, the more it will grow. You therefore should select a fabric which has much more stretch than you actually need.

Since there are no labels to tell you how much a fabric stretches or grows, it will be necessary to check both to see if they are sufficient for your purpose. A test at the store does not guarantee that the material will wear well or that growth will not increase with wear. All that you are doing is assuring yourself that adequate stretch and minimum growth are in the fabric at the time you buy it.

As you can see, there are many places where mistakes can occur in making or selecting the right fabric for the purpose. It is more important than usual, therefore, that you consider before buying what you want and what you expect it to do.

The manufacturer of garments makes them so that the same garment will fit more different shapes of the same general size more comfortably and more attractively than a non-stretch fabric can. His judgment may vary from yours.

So, first consider carefully what the advantages to you will be if you choose a stretch fabric. You may not need stretch at all. A sleeveless blouse or a full skirt of stretch would be a waste of money. Why pay extra for stretch you will not use?

On the other hand, slacks or a blouse with sleeves may be much more comfortable in a stretch material. Certainly, a stretch slipcover would be much easier to fit around the corners of a chair than would a nonstretch fabric.

Having decided what you need, you next examine the cloth. Does it stretch any more than the same type of fabric not labeled stretch? Does it stretch enough to give a smooth, comfortable feeling in the use you plan for it? Does it stretch less than 20 percent? Perhaps a good knit which may be less expensive would serve as well for your purpose.

How much is 20 percent stretch? If you grasp the cloth at two points 5 inches apart, you should be able to stretch it 1 inch, or one-fifth of the original length.

If you are planning a garment to stretch widthwise, 20 percent is enough. If it is lengthwise stretch you want, better look for 50-percent elongation or more.

Does the fabric spring back to its original length after you have pulled it out the desired amount? Is there a bulge or a stripe of puckered threads? Only a slight ripple should appear.

If the answers are satisfactory, the cloth should be suitable.

Another thing to check in garments is whether lining, interlining, and lace (if any) stretch, too. If not, why use stretch for the part of the garment to which they are attached? It will neither wear nor clean satisfactorily. On the other hand, are shoulder seams, buttonholes, front opening, and other parts of the garment which should not stretch, properly reinforced?

Stretch will not prevent shrinkage. Read the label. Unless the manufacturer guarantees a shrinkage of less than 2 percent, you should probably buy a larger size in order to assure a good fit after the garment is laundered. Or, in the case of cloth, you should shrink it before you make it up. Dry-cleaning does not cause as much shrinkage as washing, but there may be some dimensional change, and you should plan accordingly.

Stretch may take care of some of the fitting problems, but it will not be an advantage if you force something into a space that is too small, so that there will be no chance for expanding and contracting. Just as well buy a nonstretch—it is cheaper.
BEFORE YOU PURCHASE stretch fabric, be sure that you know how to handle it. Stretch fabrics require special sewing techniques.

The fabric should be laid flat at least overnight so that folds and bumps can relax, and the material will be smooth before cutting.

No special patterns are needed, but each piece should be placed so that the stretch will be in the chosen direction.

Make test stitchings before sewing on the garment.

In general, fine needles and fine stitches are required. Fine zigzagging may make the seam more elastic. Seams may need machine overcasting to prevent fraying.

As I mentioned in connection with purchase of readymade items, linings, interlinings, trimmings, laces, and such should be as elastic as the outer fabric to which they attach or the purpose of the stretch will be lost. Tape stays, however, should be applied at shoulder, waist, and other places where no stretch is desired. Buttonholes need reinforcement.

Press the seams lightly with a cool iron and a press cloth.

As styles or manufacturing methods change, fabrics may change too, and the sewing instructions also may change. More detailed up-to-date instructions for sewing with stretch fabrics may be obtained from the thread or pattern companies.

AS FOR THE CARE of stretch materials: As a rule, follow the same procedure for washing or drycleaning that you would use for any other fabric made from the same kind of fibers.

Read the labels, mark them for identification, and save them, if there are special instructions about care.

Most stretch fabrics can be washed, but the kind of fiber, weave (or knit), colors, and finishes may affect the method and temperature of cleaning.

Washing may bring back to shape a fabric that has stretched too much. If the garment is too small, however, the time will come when it will be poorly shaped, no matter what the treatment.

The best method for drying stretch fabrics is tumbler drying, with the dryer set at the correct temperature for the fiber. If you cannot use a dryer, the garment should be laid flat and blocked, if necessary, to insure the correct size in the dry garment.

Under no circumstances should an article with lengthwise stretch be hung up for drying—it will stretch.

Whatever method you use, be sure that the fabric is thoroughly dry before you use the article. Otherwise, it may lose its shape.

Usually no ironing is required, but if pressing is necessary, use a press cloth, a cool iron, and a light touch. Slack-mercerized fabrics are especially sensitive to a hot iron and pressure; overpressing may destroy the stretch or make the garment too large.

Stretch fabrics, wet or dry, should not be hung for long periods of time. Store the cloth flat in a drawer or on a shelf. Hanging in the closet is especially undesirable for lengthwise stretch, because the weight of the garment will cause it to lengthen an inch or more.

SINCE LABELS do not list stretch properties, you will probably always have to check the amount of stretch and growth in any fabric you buy to be sure that it is suitable for the use you plan. You will need to check garments and household articles to be sure that they stretch enough and that the manufacturer has not decided to use a less elastic fabric in order to cut costs. A cheaper product that does not perform properly is not an economic buy—why pay for stretch you do not get?

In short, a careful examination of each item you buy will be the best way to obtain the performance you expect. If the material does not live up to its guarantee, it should be returned for adjustment. Stretch is a "magic" word today, but be sure you receive the magic you pay for.

(S. Helen Roberts)